



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/522,173 | 01/24/2005 | Koji Inoue | XA-10268 | 3572 |
| 181 | 7590 | 01/27/2006 | EXAMINER | |
| MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833 | | | GOODEN JR, BARRY J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3616 | |

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/522,173

Applicant(s)

INOUE, KOJI

Examiner

Barry J. Gooden Jr.

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/24/05

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

Figures 7-9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

At page 1, line 25 --and-- should be inserted following "a steering column,".

At page 1, line 27-page 2, line 1 ", and the others." should be removed.

At page 2, line 7 --and-- should be inserted after "the steering shaft,".

At page 2, line 10 ", and the others." should be removed.

At page 3, lines 9-10 commas should be inserted as follows: "hole 71--,-- through which a tilt bolt 31 is inserted--,-- is".

At page 3, line 27 "other that" should be replaced with --other than--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Application, No. 10-7003.

A steering column apparatus comprising:

a steering column (3) provided with a vehicle body-side bracket (6) mounted to a vehicle body strength member (See figure 8) to have a pair of side plate portions (7) opposed each other to be extended in a vertical direction, and a generally cylindrical distance unit (Item 29 of Figure 7 of the Applicant's prior art figures; See Applicant's disclosure page 3, line 7) for supporting a steering shaft (3) to be rotatable therein and having a pair of pressed and expanding portions (25,27) formed to be expanded by plastic working (See Applicant's disclosure page 2, line 24-25) to be pressed and supported by the side plate portions (7) of the body-side bracket (6);

an adjusting mechanism (12) capable of adjusting a position of the steering column (3) with respect to the side plate portions (7) of the body-side bracket (6) within a predetermined range (See figure 8);

wherein the steering column (3) is formed with a reinforcement portion (21) for enhancing the clamping rigidity of the distance unit (29) with respect to the side plate portions (7);

wherein the reinforcement portion (21) is formed by coupling the pressed and expanding portions together in at least one of an upper part and a lower part of the pressed and expanding portions (See figure 2);

wherein the reinforcement portion (21) is comprised of a plurality of convex streaks or a plurality of concave streaks (See figure 2); and

wherein the steering column (3) is adjustable at least in one of a tilting direction or a telescopic direction with respect to the body-side bracket (6) (See figure 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3616

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application, No. 10-7003 in view of Matsumiya, US Publication 2003-0025315 A1.

Although, the method of forming the device is not germane to the issue of patentability of the device itself, in regards to claims 5 and 8, Japanese Patent Application, No. 10-7003, discloses all of the claimed elements excluding the plastic working being performed by hydro-forming.

Matsumiya discloses a steering column being molded from a tubular material by a hydro-forming process.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the steering column of Japanese Patent Application, No. 10-7003 in view of the teachings of Matsumiya to include being molded using a hydro-forming process so as to provide the steering apparatus with the high rigidity so as to give the steering column the remarkably high retaining force to the car body, and at the same time, to largely reduce the manufacturing cost required for the materials, processing works and the assembling and the weight of the steering apparatus. Note that the hydro forming process is a process of accommodating a thin tubular member into a mold, filling the tubular member with pressure water or oil, and then expanding the tubular member into a desired form. Since having no welded portion, this process is advantageous in obtaining higher strength and rigidity and reducing the manufacturing cost and the weight of the manufactured apparatus over a conventional method of forming a member having a unitary structure with a closed section by performing welding after press work. (Matsumiya, paragraphs 16 and 17)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3616

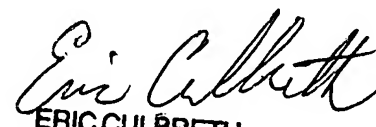
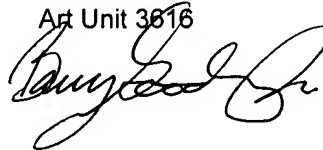
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. Gooden Jr. whose telephone number is (571) 272-5135. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG

Barry J Gooden Jr.
Examiner
Art Unit 3616



ERIC CULBRETH
PRIMARY EXAMINER